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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,032	04/03/2001	Richard A. Steenblik	40669/201349	3794

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EXAMINER

NGUYEN, THONG Q

ART UNIT	PAPER NUMBER
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2872

8

DATE MAILED: 09/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,032

Applicant(s)

STEENBLIK ET AL.

Examiner

Thong Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-77 is/are pending in the application.
- 4a) Of the above claim(s) 6-13, 29-38, 47-52 and 56-77 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 14-26, 39-46 and 53-55 is/are rejected.
- 7) ☒ Claim(s) 27 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of the invention I-A and the species A in Paper No. 7 of June 28, 2002 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

As a result of applicant's election, claims 1-5, 14-28, 39-46 and 53-55 are examined in this office action, and claims 6-13, 29-38, 47-52 and 56-77 have been withdrawn from further consideration as being directed to non-elected invention(s)/Species.

Information Disclosure Statement

2. The information disclosure statement filed on Jan. 15, 2002 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

3. The drawings contain thirty (30) sheets of figures labeled as fig. 1-30© filed on 04/03/2001 have been received by the Office.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: *In particular, the references thereof "10a-10e" shown in figs. 18(A)-(C); the reference "42" shown in fig. 21; the reference "47" shown in fig. 22; the reference "51" shown in figs.*

23(A-B); the reference "58" shown in fig. 24; and the reference "72" shown in fig. 27 are not mentioned in the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: *In particular, the reference "80" stated in page 57 (line 32) is not shown in at least one figure.* A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. The disclosure is objected to because the Summary of the invention as provided in pages 10-12 fails to comply with the requirement as set forth in 37 CFR 1.73(d). See also MPEP 608.01(d). In particular, the present summary fails to provide a brief technical description of the invention. The present summary contains descriptions directed to a history of the single lens microscope; a comparison to the convention

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microscope; the disadvantages of the conventional microscope, etc... Appropriate correction is required.

8. The disclosure is objected to because of the following informalities: a) Page 7: line 14, the square root used in the formula is incomplete. In particular, what components do the square root apply/cover? b) Page 9: line 5, what does each term "Z" and " " mean? c) Page 13: lines 14-15, the brief descriptions of figs. 15-16 are improper. Applicant should note that each of figures 15-16 has different feature/structure from other figure; therefore, applicant should provide specific brief description for each figure; d) Page 13: lines 16, 17, 26, 27 and 29: the brief descriptions of figures 17-18 and 23-25 are objected to for the similar reasons as set forth in element c) above; e) Page 14: lines 10-11, the brief descriptions of figures 31-32 are objected to for the similar reasons as set forth in element c) above; f) Page 22: line 22, the square root used in the formula is incomplete. In particular, what components do the square root apply/cover? g) Page 32: line 22, what does " \geq ;A " mean? h) Page 43: line 14, "2" should be changed to --13--, and on line 17, "3" should be changed to --4--; i) Page 47: line 22, "41" should be changed to --51--; j) Page 54: line 6, "17" should be changed to --16--. There are still some grammatical and idiomatic errors in the specification. Applicant should carefully proofread the specification. Appropriate correction is required.

9. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not disclose that the coupling

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mechanism is selected from a hook and lip mechanism or finger pressure catches as claimed in claim 46.

Claim Objections

10. Claims 27-28 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

In particular, claim 27 recites an image capture device for capturing an image of an object; however, the base claim 1 recites that the system is disclosed in a manner that there is not any opening between the system and a viewer's eye.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-5, 14-26, 39-46 and 53-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1 is rejected under 35 USC 112, second paragraph because it is unclear about the structure of the so-called "a structure adapted to support the lens and to position the object" wherein the so-called "structure" has the function thereof "the structure containing... the viewer's eye" (lines 4-7). In other words, the claim is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission

amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are relating to the sufficient structure between the so-called "structure" and the viewer's eyes to warrant for the feature of "no openings between a viewer's eye and the object to be viewed" (lines 4-5).

b) Claim 2 is rejected under 35 USC 112, second paragraph for the following reason. The terms "aperture optimized" used to refer to the lens is relative terms which render the claim indefinite. The mentioned terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In other words, what does applicant mean by "optimized" for a lens? Any lens defined a (numerical) aperture and such lens after produced has a feature of a so-called "aperture optimized" lens.

c) Claim 5 is rejected under 35 USC 112, second paragraph for the similar reason as set forth in element b) above. In other words, the terms "optimized aperture" (line 2) is indefinite.

d) Claim 17 is indefinite because the feature "the cam" (line 3) lacks a proper antecedent basis. Applicant should note that the claim recites a cam structure. See line 2.

e) Claim 24 is indefinite by the feature of a combination of different source of lights as recited in the recitation thereof "any combination thereof" (last line of the claim). Applicant should note that the claim recites only a light source (see line 1)

of the claim. As such, how can a light source can be a combination of different sources. Further, the feature "a source selected...combination thereof" is indefinite because applicant has combined the type/kind of light sources and the manner in which the light is guided. In other word, the "transmitted light" is not a light source, "transmitted light" is terms referring to a manner/method/way in which the light is guided.

f) Claim 39 is indefinite by the feature of a combination of different surfaces of the lens claimed as recited in the recitation thereof "any combination thereof" (last line of the claim). Applicant should note that the claim recites one and only one lens. Since 1) the lens has only two surfaces, i.e., an entrance surface and an exit surface; and 2) the claim is clearly defined the surfaces of the lens such as "a plano/spheric convex lens"; therefore, it is unclear about the structure of one and only one lens having only an entrance surface and an exit surface can be made by a combination of the features as claimed.

g) Claim 41 is rejected under 35 USC 112, second paragraph for the similar reason as set forth in element b) above.

h) Claim 43 is indefinite under 35 USC 112, second paragraph for the similar reason as set forth in element f) above. In other words, how can a combination of a complete removal structure and a hinged structure be combined together?

i) Claim 53 is indefinite because it is unclear about the structure of the housing with the feature thereof "housing adapted to retain and self-contain a microscope slide" as claimed.

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j) Claim 54 is rejected under 35 USC 112, second paragraph for the following reasons: 1) the similar reason as set forth in element b) above; and 2) the feature "the object" (line 8) lacks a proper antecedent basis.

k) Claim 55 is rejected under 35 USC 112, second paragraph for the following reasons: 1) the similar reason as set forth in element b) above; and 2) the use of the terms "may be" (line 2) makes the claim indefinite because it is unclear whether the feature/structure appearing after such terms is positively recited/existed in the device claimed or not.

l) The remaining claims are dependent upon the rejected base claims and thus inherit the deficiencies thereof.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-5, 14, 16, 39, 41-43 and 53-55, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al (U.S. Patent No. 3,656,840).

Smith et al disclose an optical device for viewing an object. The optical device as described in columns 1-2 and shown in figs. 1-3 comprises a structure (10) having a top member (14) for supporting one and only one lens (34) which lens is in the form of a biconvex configuration for magnifying the image of an object/specimen

(26); and a bottom member (12) for supporting a slide position mechanism (18,20,22,24,30). The slide position mechanism comprises components (24) acting as a locking means for locking the piston in a specific position inside the structure (10). The top and bottom members (12 and 14) are able to completely remove from each other. The slide position mechanism is able to control to position the specimen at different positions with respect to either the top or bottom members. It is also noted that the top and bottom members together completely enclose the specimen located inside the structure (10). While the shape of the structure (10) as shown has a tube-like configuration; however, the structure is still considered as a box having four sides defined by the bottom member (14) which is also comprises a bottom side (16) and the top member defines a top side. With regard to the feature that there is not any openings between the structure and a viewer's eye, it is considered that a user will place the structure (10) in close contact with his/her eye when (s)he makes an observation of the specimen, and thus there is not any openings be formed between the structure and the viewer's eye. With regard to the feature that the lens is a so-called "aperture optimized" lens as recited in claim, such a feature is considered as readable from the lens used in the device because any lens is use has a definite "aperture optimized" feature, and the pending claim fails to provide sufficient structure for the so-called "aperture optimized" lens.

15. Claims 1-2, 5, 14, 16, 18, 22-26, 53 and 54, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Wallace (U.S. Patent No. 4,095,874).

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Wallace discloses an optical device for viewing an object. The optical device as described in columns 3-4 and shown in figs. 1-16 comprises a structure having a top member (14) for supporting one and only one lens (22) which lens is a spherical configuration for magnifying the image of an object/specimen (S); and a bottom member (10) comprises a light-admitting aperture (28) and is a member for supporting a slide position mechanism which comprises components (30) acting as a locking means for locking the slide (32) inside the structure (10). The movement of the top and/or bottom or both due to the force of a user's hands will cause a change in position of the slide with respect to the lens and thus a change in focus. The top and bottom members (10 and 14) are attached to each other via a living hinge connection. The structure of the light-admitting aperture acts as a light controlling member for the optical device. See column 3, lines 13+. It is also noted that the top and bottom members together will partially enclose the specimen located inside the structure. With regard to the feature that there is not any openings between the structure and a viewer's eye, it is considered that a user will place the structure (10) in close contact with his/her eye when (s)he makes an observation of the specimen, and thus there is not any openings be formed between the structure and the viewer's eye. With regard to the feature that the lens is a so-called "aperture optimized" lens as recited in claim, such a feature is considered as readable from the lens used in the device because any lens in use has a definite "aperture optimized" feature, and the pending claim fails to provide sufficient structure for the so-called "aperture optimized" lens.

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16. Claims 1-2, 5, 14, 19-21, 53 and 54, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Onanian (U.S. Patent No. 4,568,148).

Onanian discloses a collapsible microscope. The system as described in columns 5-7 comprises a structure having a top section (12) supporting one and only one lens (24) and a bottom section (14) supporting a slide position mechanism wherein the top and bottom section are connected by pleats (16,18) having folding lines so that the distance between the two sections is able to adjust for the purpose of focusing. In column 7 and figs. 20-23, Onanian teaches the use of a rotatable disc having a plurality of optical elements such as polarization elements, filter elements, etc.. for the purpose of varying the optical performance of the device. With regard to the feature that there is not any openings between the structure and a viewer's eye, it is considered that a user will place the structure (10) in close contact with his/her eye when (s)he makes an observation of the specimen, and thus there is not any openings be formed between the structure and the viewer's eye. With regard to the feature that the lens is a so-called "aperture optimized" lens as recited in claim, such a feature is considered as readable from the lens used in the device because any lens is use has a definite "aperture optimized" feature, and the pending claim fails to provide sufficient structure for the so-called "aperture optimized" lens.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace in view of Richard et al (U.S. Patent No. 5,818,634).

The system provided by Wallace does not disclose that the lens for magnifying an image can be a diffractive lens. However, the use of a diffractive lens in a magnifying system is suggested to one skilled in the art as can be seen in the system provided by Richard et al. See column 4 and fig. 1, for example. Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize a diffractive lens as suggested by Richard et al in a magnifying system as that provided by Wallace for the purpose of improving the quality of an image to be viewed.

Allowable Subject Matter

19. Claims 44-46 would be allowable if claim 44 is rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

20. The following is an examiner's statement of reasons for allowance:

The microscope support structure as recited in claim 44/42/41 is patentable with respect to the cited art by the limitations concerning the structure of the microscope support structure. In particular, the cited art does not disclose a microscope support structure comprises a top member supporting one and only one lens, a base supporting

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a microscope slide wherein the base and the top member are hinged to each other and the support structure comprises a slide positioning mechanism and a focusing mechanism and the supporting structure substantially enclose a slide for viewing..

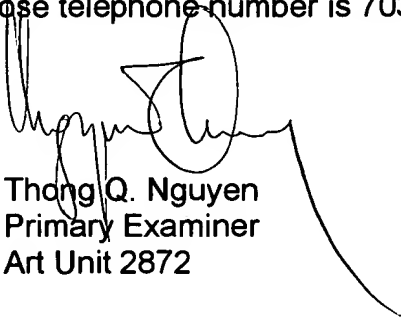
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
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September 5, 2002